SEQUENCE LISTING

<110> Efendic, Suad

<120> USE OF GLP-1 OR ANALOGS IN TREATMENT OF STROKE

<130> X-11158_US

<140> US 09/400,802
<141> 1999-09-22

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<151> 1998-09-24

<160> 35

<170> PatentIn version 3.0

<210> 1
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<212> PRT
<213> Homo sapiens

<400> 1

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 2
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<220>
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<400> 2

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys
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<220>
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<400> 3

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly
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<210> 4
<211> 30
<212> PRT
<213> Homo sapiens

<400> 4

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

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<400> 5

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

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<400> 6

His Ala Gln Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 7
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<222> (3)..(3)
<223> Xaa at position 3 is D-Gln

<400> 7

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 8
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<400> 8

His Ala Glu Gly Thr Phe Thr Ser Asp Thr Ser Lys Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

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<400> 9

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

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<222> (20)..(20)
<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg, D-Arg and Met

<220>
<221> VARIANT
<222> (28)..(28)

<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg, D-Arg and Met

<400> 10

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa
20 25

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<222> (20)..(20)
<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg, D-Arg and Met

<220>
<221> VARIANT
<222> (28)..(28)
<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg, D-Arg and Met

<400> 11

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa Gly
20 25

<210> 12
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<222> (20)..(20)
<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg, D-Arg and Met

<220>
<221> VARIANT
<222> (28)..(28)

<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg, D-Arg and Met

<220>
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<222> (30)..(30)
<223> Xaa at position 30 is Lys, D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Met and D-Arg

<400> 12

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His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1               5                  10                  15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa Gly Xaa Gly
            20                  25                  30
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<210> 13
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<222> (10)..(10)
<223> Xaa at position 10 is Tyr or Val

<220>
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<222> (12)..(12)
<223> Xaa at position 12 is Lys or Ser

<220>
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<222> (15)..(15)
<223> Xaa at position 15 is Asp or Glu

<220>
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<222> (16)..(16)
<223> Xaa at position 16 is Ser or Gly

<220>
<221> VARIANT
<222> (17)..(17)
<223> Xaa at position 17 is Arg or Gln

<220>
<221> VARIANT
<222> (18)..(18)

<223> Xaa at position 18 is Arg or Ala

<220>
<221> VARIANT
<222> (20)..(20)
<223> Xaa at position 20 is Gln or Lys

<400> 13

His Ala Glu Gly Thr Phe Thr Ser Asp Xaa Ser Xaa Tyr Leu Xaa Xaa
1 5 10 15

Xaa Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 14
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<220>
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<400> 14

Tyr Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 15
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<212> PRT
<213> Artificial

<220>
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<220>
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<222> (1)..(1)
<223> Xaa at position 1 is N-acetyl-His

<400> 15

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 16
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<213> Artificial

<220>
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<222> (1)..(1)
<223> Xaa at position 1 is N-isopropyl-His

<400> 16

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 17
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<222> (2)..(2)
<223> Xaa at position 2 is D-Ala

<400> 17

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

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<222> (3)..(3)
<223> Xaa at position 3 is D-Glu

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His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 19
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<220>
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<400> 19

His Ala Asp Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 20
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<222> (3)..(3)
<223> Xaa at position 3 is D-Asp

<400> 20

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

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<222> (4)..(4)
<223> Xaa at position 4 is D-Phe

<400> 21

His Ala Glu Xaa Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 22
<211> 31
<212> PRT
<213> Artificial

<220>
<223> synthetic construct

<400> 22

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Ser
1 5 10 15

Arg Arg Ala Gln Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 23
<211> 31
<212> PRT
<213> Artificial

<220>
<223> synthetic construct

<400> 23

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 24
<211> 31
<212> PRT
<213> Artificial

<220>
<223> synthetic construct

<220>
<221> VARIANT
<222> (1)..(1)
<223> Xaa at position 1 is His, D-histidine, desamino-histidine, 2-amino-histidine, beta-hydroxy-histidine, homohistidine, alpha-fluormethyl-histidine, and alpha-methyl-histidine

<220>
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<222> (2)..(2)
<223> Xaa at position 2 is Ala, Gly, Val, Thr, Ile, and alpha-methyl-Ala

<220>
<221> VARIANT
<222> (15)..(15)

<223> Xaa at position 15 is Glu, Gln, Ala, Thr, Ser, and Gly

<220>
<221> VARIANT
<222> (21)..(21)
<223> Xaa at position 21 is Glu, Gln, Ala, Thr, Ser, and Gly

<220>
<221> VARIANT
<222> (31)..(31)
<223> Xaa at position 31 is Gly-OH or is absent

<400> 24

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Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Xaa Gly
1               5                   10                  15

Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
            20                  25                  30
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<210> 25
<211> 30
<212> PRT
<213> Artificial

<220>
<223> synthetic construct

<400> 25

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His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1               5                   10                  15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
            20                  25                  30
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<210> 26
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<212> PRT
<213> Artificial

<220>
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<220>
<221> VARIANT
<222> (3)..(3)
<223> Xaa at position 3 is acetyl-Lys

<400> 26

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His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1               5                   10                  15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
            20                  25                  30
```

<210> 27
<211> 31
<212> PRT
<213> Artificial

<220>
<223> synthetic construct

<400> 27

His Ala Thr Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 28
<211> 31
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<220>
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<220>
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<222> (3)..(3)
<223> Xaa at position 3 is D-Thr

<400> 28

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 29
<211> 31
<212> PRT
<213> Artificial

<220>
<223> synthetic construct

<400> 29

His Ala Asn Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 30
<211> 31
<212> PRT
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<220>
<223> synthetic construct

<220>
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<222> (3)..(3)
<223> Xaa at position 3 is D-Asn

<400> 30

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 31
<211> 31
<212> PRT
<213> Artificial

<220>
<223> synthetic construct

<400> 31

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Arg Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 32
<211> 31
<212> PRT
<213> Artificial

<220>
<223> synthetic construct

<400> 32

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Arg Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 33
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<212> PRT
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<220>
<223> synthetic construct

<220>
<221> VARIANT
<222> (28)..(28)

<223> Xaa at position 28 is Lys and Lys-Gly

<400> 33

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa
20 25

<210> 34
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<220>
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<220>
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<222> (28)..(28)
<223> Xaa at position 28 is Lys, Lys-Gly, Lys-Gly-Arg

<400> 34

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa
20 25

<210> 35
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<220>
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<220>
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<222> (1)..(1)
<223> Xaa at position 1 is 4-imidazopropionyl, 4-imidazoacetyl, 4-imidazo-alpha, or alpha dimethyl-acetyl

<220>
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<222> (20)..(20)
<223> Xaa at position 20 is Lys or Arg

<220>
<221> VARIANT
<222> (31)..(31)
<223> Xaa at position 31 is Gly or absent

<400> 35

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
20 25 30